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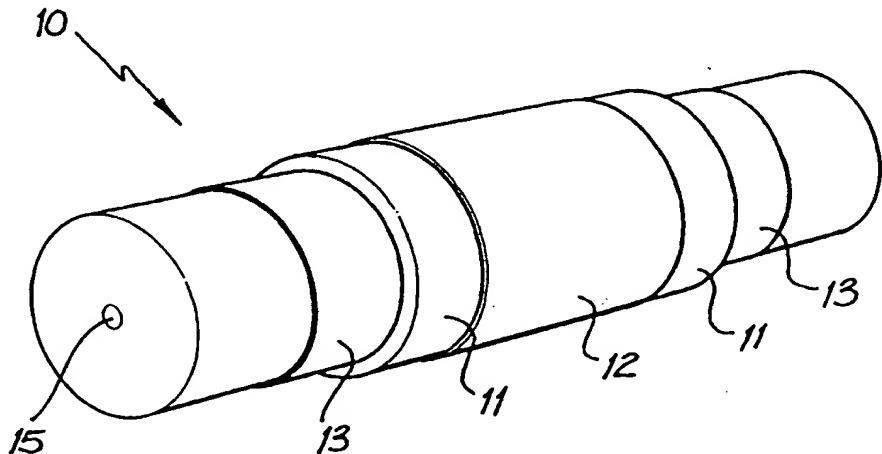
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(54) Title: **FABRICATION OF ZINC OXIDE FILMS ON NON-PLANAR SUBSTRATES AND THE USE THEREOF**



(57) Abstract

A method of manufacture of a substantially continuous circumferential coating on a non-planar substrate, is disclosed the method comprising the steps of: utilising a substantially non directional deposition technique and a substantially static substrate deposition geometry to deposit the coating. Coatings can be deposited which include piezo-electric modulation characteristics or electro-optic modulation characteristics. Ideally the coating has semiconducting properties. The type of coating ideally includes Zinc-Oxide coatings. The non directional deposition technique can comprise chemical vapour deposition via single source chemical vapour deposition. Suitable substrates include optical fibres which are clamped onto a substantially planar heating surface during the deposition. The optical fibre can be clamped at a portion of the length of the fibre which is located at one end of a heating surface during the deposition such that movement of a free end of the optical fibre is limited to movement substantially along the axis of the optical fibre.